

## II. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested.

### *Claim Rejections - 35 U.S.C. § 112*

Claims 1-4, 6-7, 9, and 11-12 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 has been amended to recite “a Helmholtz effect” to more particularly point out and distinctly claim the subject matter which applicants regard as the invention. Accordingly, the scope of claim 1 as provided does exhibit a Helmholtz effect.

### *Claim Rejections - 35 U.S.C. §103(a)*

Claims 1-4, 6-7, 9, 11-12, 14, 17 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. 5,413,316 to Easter (Easter) in view of U.S. 3,134,404 to Ziccardi (Ziccardi).

Claim 1 recites that “when the switching device is in a closed position, [it] reduces the cross section to a specific residual opening cross section, such that an effective closure of the connecting line results by use of a Helmholtz effect.” The examiner contends that Ziccardi “operates in the manner claimed.” However, as noted in column 1, line 25, Ziccardi provides a leak-proof (or sealed)

valve. As can be seen in Figure 17, the valve of Ziccardi rotates in plane to align the poles of magnet 55 with either electromagnet A or B. Accordingly, with the valve open, holes 56 align with holes in an adjacent plate allowing flow as indicated in the left-hand side of the figure. Alternatively, with the valve closed, the holes align with a face of the adjacent plate such that the flow is cut off as indicated by the right-hand side of Figure 17. Accordingly, the flow through the valve is sealed and a Helmholtz effect is not available. The instant application, as can be seen from Figures 14 and 15, valve plate rotates out of plane, and more specifically, does not provide a full seal allowing the Helmholtz effect as claimed. Accordingly, neither Easter nor Ziccardi alone or in combination teach or suggest the limitations provided in claim 1 and, therefore, do not teach or suggest the present invention.

Claims 2-4, 6-7, 9, and 11-12 are patentable for at least the reasons given above in support of claim 1.

Claim 14 recites a constrictor valve that "can rotate between an open and closed position, with a specific residual opening cross section remaining in the closed position." As discussed above, Ziccardi provides for a valve that seals off flow, not one that provides a residual opening cross section in the closed position. Neither Easter nor Ziccardi alone or in combination teach or suggest the valve having a residual opening cross section in the closed position. Therefore, Easter and Ziccardi do not teach or suggest the present invention as provided in claim 14.

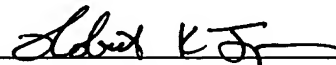
Claims 17 and 19 depend from claim 14 and are, therefore, patentable for at least the same reasons given above in support of claim 14. Accordingly, applicants respectfully request withdrawal of the rejections under 35 U.S.C. §103.

*Conclusion*

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is respectfully requested.

Respectfully submitted by,

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